



Attorney Docket No. **IMMR-023/03US**

JPW
For sig.
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re application David ALEXANDER et al.

Serial No.: 10/657,079

Examiner: Unassigned

Filed: September 9, 2003

Art Unit: 3739

Confirmation No.: 9176

For: **INTERFACE DEVICE AND METHOD FOR INTERFACING INSTRUMENTS
TO MEDICAL PROCEDURE SIMULATION SYSTEMS**

U.S. Patent and Trademark Office
220 20th Street S.
Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed is an Information Disclosure Statement and accompanying Form PTO/SB/08A for the above-identified patent application.

- ☒ In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- ☐ In accordance with 37 C.F.R. §1.97(c), also enclosed is:
- ☐ the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
 - ☐ a statement as specified in 37 C.F.R. §1.97(e).
- ☐ In accordance with 37 C.F.R. §1.97(d), a statement as specified in 37 C.F.R. §1.97(e) and the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) are also enclosed.
- ☐ Check No. ___ in the amount of \$___ for the total fee is attached.
- ☐ A return receipt postcard is also enclosed.
- ☐ Please charge \$___ to Deposit Account No. 50-1283 for the total fee. This paper is being submitted in duplicate.


The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1283.

Dated: July 13, 2004

Cooley Godward LLP
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Respectfully submitted,
COOLEY GODWARD LLP

By:



Erik B. Milch
Reg. No. 42,887



Attorney Docket No. **IMMR-023/03US**

PATENT

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**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)**

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- ☒ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 (1 of 2) is provided on the enclosed CD.
- ☒ No copies of the publications listed on the attached Form PTO/SB/08A (2 of 2) are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. 09/237,969, filed January 27, 1999, to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.
- ☐ Publication(s) ___ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to ___ application serial no. and mailed on ___.
- ☐ Enclosed is a copy of a non-English publication(s) ___. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).

- ☐ Enclosed is a copy of a non-English publication(s) ____ English language publication ____ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) ____ for which an English translation is not available.
- ☐ Enclosed is an English translation of non-English publication(s) ____ cited in the attached Form PTO/SB/08A.
- ☐ Enclosed is a copy of pending U.S. Patent Application Serial No. _____

This Information Disclosure Statement is filed within any one of the following time periods:

- ☐ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in this international application;
- ☒ before the mailing date of a first office action on the merits; or
- ☐ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.


It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: July 13, 2004

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ATTN: Patent Group
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Respectfully submitted,
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Erik B. Milch
Reg. No. 42,887



(1 of 2)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		6,422,941	7/23/2002	Thorne et al.	
		6,160,489	12/12/2000	Perry et al.	
		6,111,577	8/29/2000	Zilles et al.	
		6,086,528	07/11/2000	Adair	
		5,817,107	10/6/1998	Schaller	
		5,630,592	07/25/1997	Wichman et al.	
		5,575,761	11/19/1996	Hajianpour	
		5,437,607	8/1/1995	Taylor	
		5,436,622	7/25/1995	Gutman et al.	
		5,263,970	2/8/1994	Alger	
		5,186,695	2/16/1993	Mangseth et al.	
		5,175,459	12/29/1992	Daniel et al.	
		5,165,897	11/24/1992	Johnson	
		5,022,384	6/11/1991	Freels	
		4,885,565	12/5/1989	Embach	
		4,484,191	11/20/1984	Vavra	
		4,464,117	8/7/1984	Foerst	
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		4,333,070	6/1/1982	Barnes	
		4,262,549	4/21/1981	Schwollenbach	
		4,127,752	11/28/1978	Lowthorp	
		2,972,140	2/14/1961	Hirsch	

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key-Planning Co.	
		JP	H7-24147		1/27/1995	Sega Corporation	
		JP	H5-192449		8/3/1993	Taito Corporation	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet **2** of **3**

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Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," <i>PRESENCE</i> , 4(4):387-402, Harvard Univ., 1995.
		ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH
		ALUKSTALNIS et al., "Silicon Mirrors: The Art and Science of Virtual Reality," ISBN 0-933010-82-7, pp. 129-140, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>DSC-Vol. 55-1, Dynamic Systems and Control</i> , Volume 1, ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414. , 1995,
		LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," <i>Safe Flight Instrument Corporation</i> , Revised 28 January 2002 (3 pages).

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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Substitution ~~TRADE~~ 49A/PTO**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 3 of 3**Complete if Known**

Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).	
		ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.M./ SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994.	
		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992.	
		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.	

Examiner Signature	/Timothy Musselman/	Date Considered	06/14/2010
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **1** of **12**

Complete if Known

Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

U.S. PATENT DOCUMENTS

Exam iner Initial s*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY
		Number	Kind Code ² (if known)		
		6,223,100		Green	04-2001
		5,995,738		DiGioia, III et al.	11-30-1999
		5,967,790		Strover et al.	10-19-1999
		5,956,040		Asano et al.	09-21-1999
		5,951,301		Yunker	09-14-1999
		5,947,743		Hasson	09-07-1999
		5,945,056		Day et al.	08-31-1999
		5,941,710		Lampotang et al.	08-24-1999
		5,909,380		Dubois et al.	06-01-1999
		5,891,131		Rajan et al.	04-06-1999
		5,890,908		Lampotang et al.	04-06-1999
		5,882,207		Lampotang et al.	03-16-1999
		5,882,206		Gillio	03-16-1999
		5,880,976		DiGioia, III et al.	03-09-1999
		5,873,732		Hasson	02-23-1999
		5,873,731		Prendergast	02-23-1999
		5,853,292		Eggert et al.	12-29-1998
		5,828,197		Marrin et al.	10-27-1998
		5,825,441		Rosenberg et al.	10-20-1998
		5,825,308		Rosenberg et al.	10-13-1998
		5,821,920		Hu	09-15-1998
		5,807,115		Rosenberg et al.	09-08-1998
		5,805,140		Bailey	09-01-1998
		5,800,179		Gillio	09-01-1998
		5,800,178		Gillio	09-01-1998
		5,800,177		Gillio	08-11-1998
		5,791,908		Bobick, et al.	07/28/1998
		5,785,630		Jacobus et al.	06-23-1998
		5,769,640		Swadens et al.	06-16-1998
		5,768,134		Rosenberg	06-16-1998
		5,767,839		Sinclair et al.	06/16/1998
		5,766,016		Gillio	05-26-1998
		5,755,577		Chen et al.	04-21-1998
		5,742,278		Nafis et al.	04-21-1998
		5,740,802		Rosenberg et al.	04-14-1998
		5,739,811		Rosenberg et al.	03-31-1998
		5,734,373		Rosenberg	03-24-1998
		5,731,804		Rosenberg et al.	03-03-1998
		5,724,264		Yunker	03-03-1998
		5,722,836			

Examiner
Signature

Date
Considered

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2

of 12

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First Named Inventor	David Alexander
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		Number	Kind Code ² (if known)		
		5,721,566		Rosenberg et al.	02-24-1998
		5,704,791		Gillio	01-06-1998
		5,701,140		Rosenberg et al.	11-23-1997
		5,691,898		Rosenberg et al.	11-25-1997
		5,687,259		Linford	11-11-1997
		5,682,886		Delp et al.	11-04-1997
		5,666,138		Culver	09-09-1997
		5,629,594		Jacobus et al.	05-13-1997
		5,623,582		Rosenberg	04-22-1997
		5,609,485		Bergman et al.	03-11-1997
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		5,589,854		Tsai	12-31-1996
		5,576,727		Rosenberg et al.	11-19-1996
		5,559,412		Schuler	09-24-1996
		5,552,995		Sebastian	09-03-1996
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		5,548,843		Waters	08-20-1996
		5,531,217		Schneider	07-02-1996
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		5,510,832		Garcia	04-23-1996
		5,509,810		Schertz et al.	04-23-1996
		5,483,961		Kelly et al.	01-16-1996
		5,483,254		Powell	01-09-1996
		5,482,472		Caroni et al.	01-09-1996
		5,466,213		Hogan et al.	11/14/1995
		5,459,382		Jacobus et al.	10-17-1995
		5,454,722		Holland et al.	10-03-1995
		5,451,924		Massimino et al.	09-19-1995
		5,438,529		Rosenberg et al.	08-01-1995
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		5,403,191		Tuason	04-04-1995
		5,391,081		Lampotang et al.	02-21-1995
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		5,385,474		Brindle	01-31-1995
		5,377,116		Wayne et al.	12-27-1994
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		5,354,202		Moncrief et al.	10-11-1994
		5,343,871		Bitman et al.	09-06-1994

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		5,338,198		Wu et al.	08-16-1994
		5,334,027		Wherlock	08/02/1994
		5,333,106		Langher et al.	07-26-1994
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		5,273,038		Beavin	12-28-1993
		5,271,290		Fischer	12/21/1993
		5,261,404		Mick et al.	11-16-1993
		5,240,417		Smithson et al.	08/31/1993
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		5,220,248		Schmitt	06/05/1993
		5,212,473		Louis	05/18/1993
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Examiner Signature	Date Considered
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **4**of **12****Complete if Known**

Application Number	10/657,079
Filing Date	September 9, 2003
First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

U.S. PATENT DOCUMENTS

Exam iner Initial s*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/657,079
		Filing Date	September 9, 2003
		First Named Inventor	David Alexander
		Art Unit	3739
		Examiner Name	Unassigned
		Attorney Docket Number	IMMR023/03US
Sheet	5	of	12

U.S. PATENT DOCUMENTS			
Examiner Initials*	Cite No. ¹	U.S. Patent Document Number (if known)	Date of Publication of Document MM-DD-YYYY
		Des. 233,238	Reid et al.
			10-15-1974

Examiner Signature	/Timothy Musselman/	Date Considered	06/14/2010
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **6** of **12****Complete if Known**

Application Number	10/657,079
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First Named Inventor	David Alexander
Art Unit	3739
Examiner Name	Unassigned
Attorney Docket Number	IMMR023/03US

FOREIGN PATENT DOCUMENTS

Examiner Initial s*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁴
		Office ¹	Number ²	Kind Code ³ (if known)			
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		First Named Inventor	David Alexander
		Art Unit	3739
		Examiner Name	Unassigned
		Attorney Docket Number	IMMR023/03US
Sheet	7	of	12

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initial s*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁴
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		Examiner Name	Unassigned
Sheet 8 of 12	Attorney Docket Number	IMMR023/03US	

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		Filing Date	September 9, 2003
		First Named Inventor	David Alexander
		Art Unit	3739
		Examiner Name	Unassigned
		Attorney Docket Number	IMMR023/03US
Sheet	9	of	12

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Examiner Signature	Date Considered
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		Examiner Name	Unassigned
		Attorney Docket Number	IMMR023/03US
Sheet	11	of	12

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Sheet 12

of

12

Complete if Known

Application Number 10/657,079

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First Named Inventor David Alexander

Art Unit 3739

Examiner Name Unassigned

Attorney Docket Number IMMR023/03US

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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